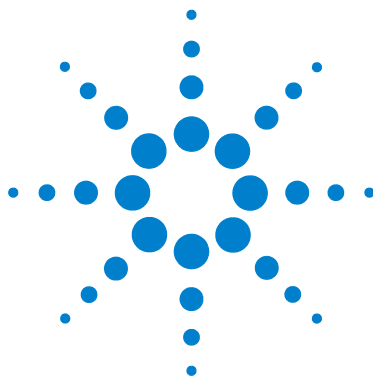




Agilent G2738A Upstream Capillary Interface

**4890, 5890, and 6890
Gas Chromatographs**

Installation Guide



Agilent Technologies

Notices

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Manual Part Number

G2738-90107

Edition

Second edition, March 2003

First edition, August 2002

Replaces part number G2738-90100

Printed in USA

Agilent Technologies, Inc.
2850 Centerville Road
Wilmington, DE 19808-1610 USA

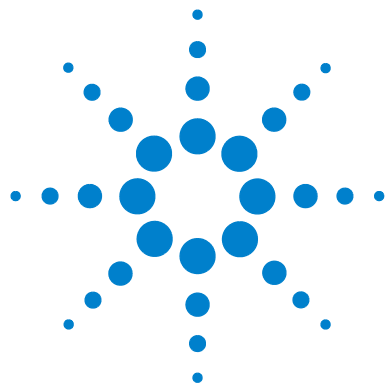
Safety Notices

CAUTION

A **CAUTION** notice denotes a hazard. It calls attention to an operating procedure, practice, or the like that, if not correctly performed or adhered to, could result in damage to the product or loss of important data. Do not proceed beyond a **CAUTION** notice until the indicated conditions are fully understood and met.

WARNING

A **WARNING** notice denotes a hazard. It calls attention to an operating procedure, practice, or the like that, if not correctly performed or adhered to, could result in personal injury or death. Do not proceed beyond a **WARNING** notice until the indicated conditions are fully understood and met.



Installation Guide

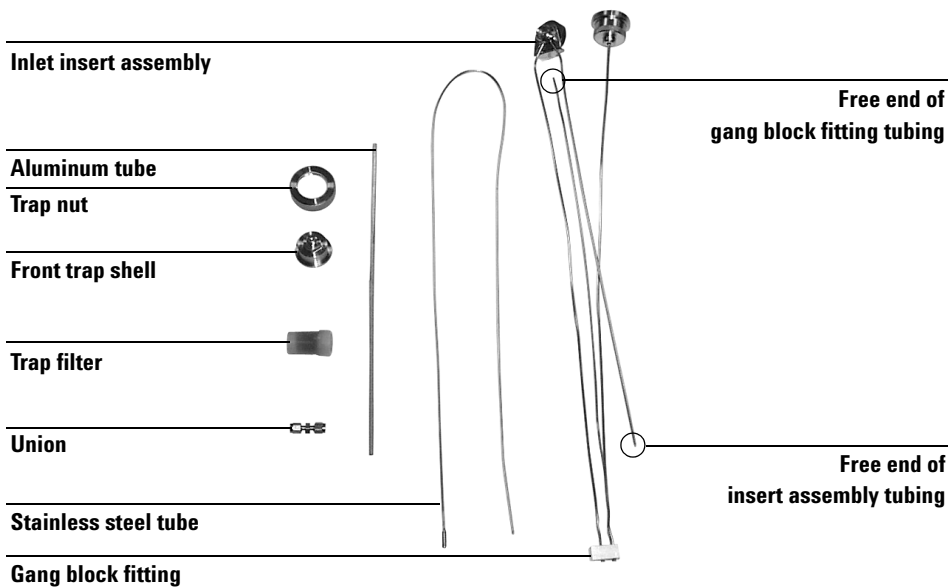
The Upstream Capillary Interface connects a gas sample valve capillary inlet so that the sample can be split before entering the column. The kit provides parts for installation on the 4890, 5890, and 6890 gas chromatographs (GC).

Table 1 Kit contents

Description	Quantity
Union, stainless steel, 1/16-in.	1
Stainless steel tube, 800 mm	1
Aluminum tube	1
Inlet insert assembly	1
Front trap shell	1
Trap nut	1
Trap filter kit (2/pkg)	1
Modified detector top cover	1
Installation sheet (this document)	1



Part identification



Tools required

- Screwdrivers
- Open end wrenches

Safety information

WARNING

The oven, inlet, and valve box may be very hot. Before proceeding, turn off the oven and all other heated zones and let them cool.

Turn off all gases at the source before proceeding.

4890 and 5890 Gas Chromatographs

This procedure assumes that the sample valve has already been installed and plumbed.

There are two stainless steel tubes welded to the capillary inlet insert weldment assembly. The carrier gas supply tube is welded to the *flat* side of the assembly.

CAUTION

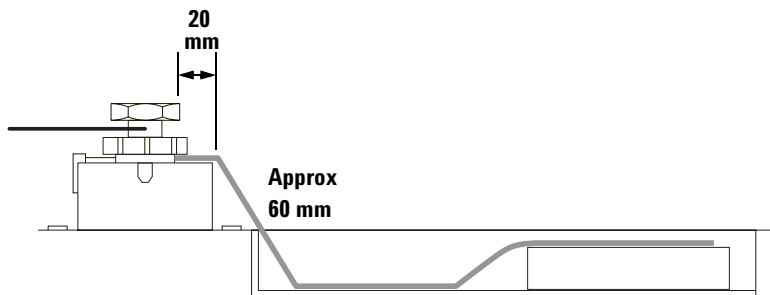
If the insert weldment assembly (part number 18740-60850) has any significant tubing bends within 1 inch (25 mm) of the flat face of the weldment, the chances of cracking the weldment during straightening and subsequent modifications approach 100 percent. If the weldment cracks, it must be replaced.

- 1 Locate and inspect the carrier gas supply tube where it is welded to the insert weldment. If the tube is bent within 1 inch (25 mm) of the flat weldment face or at the weldment, replace the insert weldment assembly before proceeding.
- 2 Cut the carrier supply line 12 inches from the flat face of the weldment. Leave both pieces of tubing in place for later use.
- 3 Straighten the length of tubing attached to the weldment. Straighten the aluminum tube and slip it over the tubing attached to the weldment until it touches the flat face of the weldment. The combined tube is called the **transfer line**.
- 4 Remove screws holding the valve box cover and move the cover aside.
- 5 Loosen the insert weldment retaining nut just below the tubing. Rotate the weldment and tubing so that the flat face points squarely at the valve box.
- 6 Mark the aluminum tubing of the transfer line just above the screw holding the capillary inlet to the GC.
- 7 Raise the insert weldment assembly above the inlet. Using two pairs of pliers to avoid stressing the weldment, bend the transfer line down sharply at the marked point.

CAUTION

In the next step, bend the transfer line as needed but *do not try to modify the top bend*.

- 8** Bend the transfer line so that, when the weldment is in place and the retaining nut tightened, the transfer line touches or is slightly above the bottom of the valve box.



- 9** Attach the transfer line to the exit port of the valve (see [Figure 1](#)).
 - Gas sample valve (6-port) Port 6
 - Liquid sample valve Port 3
- 10** Use the union to connect the stainless steel tube to the free end of the tube cut in step 2. This is the carrier gas supply line. Connect the other end of the stainless steel tube to the carrier gas inlet of the valve (see [Figure 1](#)).
 - Gas sample valve (6-port) Port 5
 - Liquid sample valve Port 4
- 11** Re-install the valve box cover.

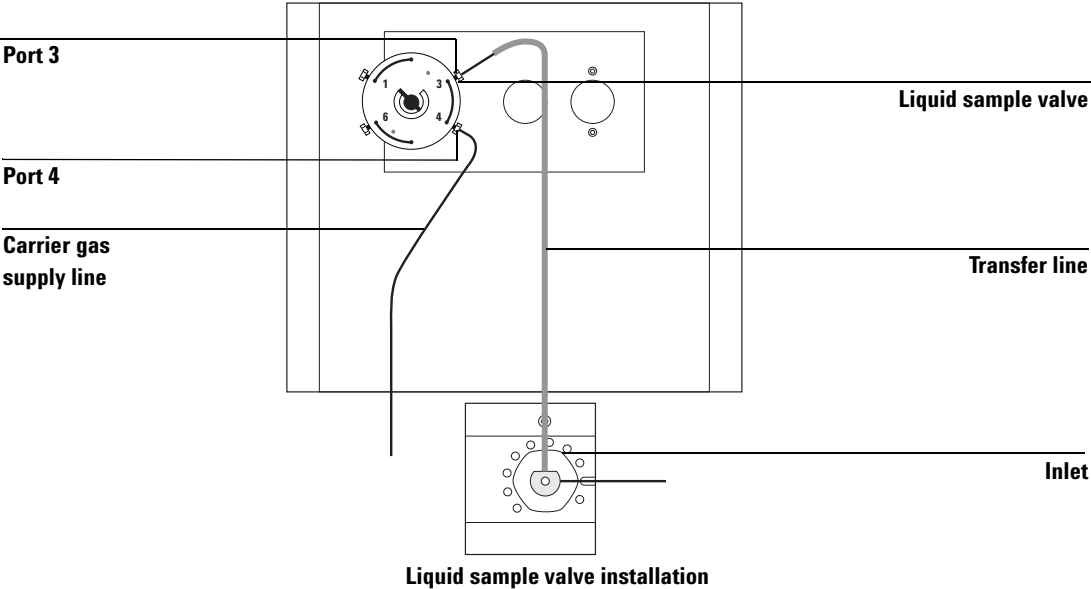
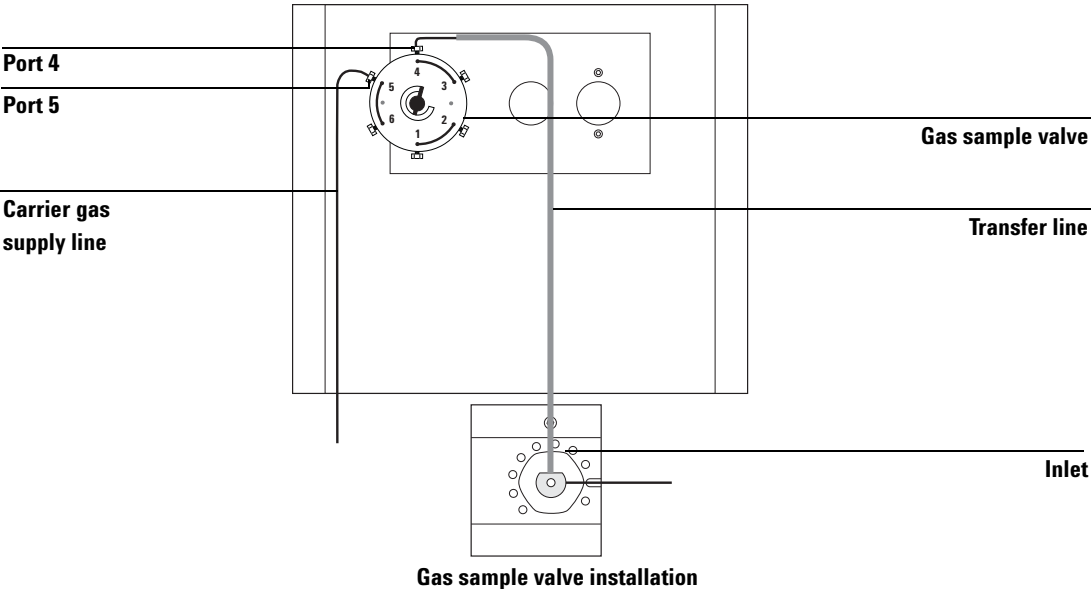
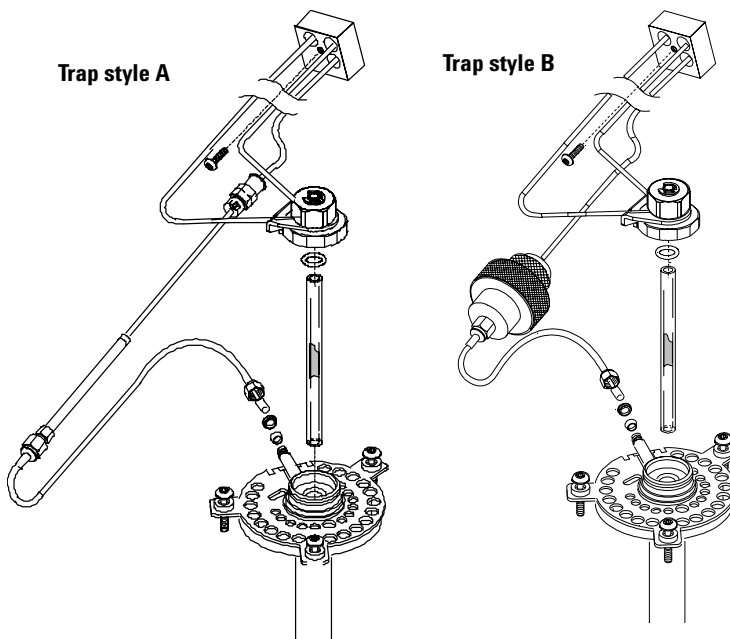


Figure 1 Installation diagrams

6890 Gas Chromatograph

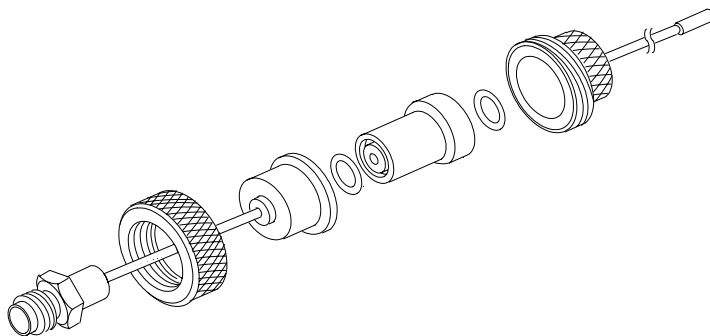
This procedure assumes that the sample valve has already been installed and plumbed.

- 1 Disconnect the gang block fitting from the inlet flow module. Be careful not to lose the small O-rings.
- 2 Loosen the large retaining nut on the inlet insert weldment.



- 3 If you have **trap style A**:
 - a Disconnect the vent line at the trap end.
 - b Remove and discard the trap, gang block fitting, and inlet insert weldment
 - c Continue at step 5.
- 4 If you have **trap style B**:
 - a Unscrew the knurled nut on the split vent trap assembly.
 - b Remove the old inlet insert weldment and attached parts from the GC.

- 5 Mount the new inlet insert assembly on the split/splitless inlet. Orient the assembly so that the flat side with the two lengths of tubing points directly at the valve box. Tighten the large retaining nut.
- 6 Connect the new gang block fitting to the inlet flow module, using the screw and O-rings removed in step 1.
- 7 Install the new trap filter and assemble the split vent trap.



- 8 Locate the free end of the **inlet insert assembly** tubing. Follow steps 2 through 9 of the 4890/5890 procedure, beginning on page 3, to connect this end to the valve.
- 9 Locate the free end of the **gang block fitting** tubing. This is the carrier gas supply line. Connect the free end to the carrier gas inlet port of the valve:
 - Gas sample valve (6-port) Port 5
 - Liquid sample valve Port 4
- 10 Re-install the valve box cover.



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Agilent Technologies, Inc.
Printed in USA, March 2003



G2738-90107